

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CELLULAR COMMUNICATIONS
EQUIPMENT LLC,

Plaintiff,

v.

HTC CORPORATION, ET AL.

Defendants.

CIVIL ACTION NO. 6:13-cv-507

CONSOLIDATED LEAD CASE

**PLAINTIFF'S OPENING BRIEF
ON CLAIM CONSTRUCTION**

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TABLE OF EXHIBITS

- Exhibit A U.S. Patent No. 8,055,820
- Exhibit B Excerpts from Collins English Dictionary (4th ed. 2000) (“usage”); Collins English Dictionary and Thesaurus (1994); New Oxford American Dictionary (2d ed. 2005) (“usage”); Webster’s II New College Dictionary (3d ed. 2005) (“usage”); Webster’s New American Dictionary (1995) (“usage”); Webster’s New World Dictionary (4th ed. 2003) (“usage”); Collins English Dictionary (9th ed. 2007); and Random House Webster’s Unabridged Dictionary 2007 (2d ed. 2001) (“usage”)
- Exhibit C U.S. Patent No. 7,218,923
- Exhibit D Excerpts from Paper 1, IPR2014-01133 (Petition for *Inter Parties* Review of U.S. Patent No. 7,218,923 filed July 10, 2014 by NEC Corporation of America, NEC CASIO Mobile Communications, Ltd., HTC Corporation, HTC America, ZTE (USA), Pantech Co., Ltd., Pantech Wireless, Inc., LG Electronics, Inc., and LG Electronics U.S.A., Inc.)
- Exhibit E Excerpts from Paper 9, IPR2014-01133 (Patent Owner’s Preliminary Response Under 37 C.F.R. § 24.107 filed Oct. 23, 2014)
- Exhibit F Excerpts from Steven M. Kaplan, Wiley Electrical and Electronics Engineering Dictionary (IEEE Press, John Wiley & Sons 2004)

I. INTRODUCTION

Plaintiff Cellular Communications Equipment LLC (“CCE” or “Plaintiff”) submits this opening claim construction brief addressing the remaining disputed claim terms found in U.S. Patent No. 8,055,820 (“the ’820 patent”) and U.S. Patent No. 7,218,923 (“the ’8923 patent”). These patents are part of a broader portfolio acquired from Nokia Siemens Networks (“NSN”) and generally relate to mobile communications. The ’820 patent has been declared essential to practicing LTE wireless standards, and the ’8923 patent relates to message security features in a mobile terminal. The accused products at issue are mobile devices, including cellular phones, tablets, and wireless cards.

Judge Davis held an initial claim construction hearing on December 16, 2014, addressing ten claim terms across all five patents asserted by CCE (including the ’820 and ’8923 patents). The Court has not yet issued a claim construction order for that proceeding, preliminary or otherwise.

The three terms at issue here — “usage,” “a message of the messages,” and “tamper resistant” — use ordinary language in its ordinary sense, and thus require no construction. Nonetheless, Defendants seek confining re-interpretations of these terms that impermissibly and unjustifiably alter the scope of the claims. As explained below, their proposals are without merit.

II. APPLICABLE LAW

A. The claims define the scope of the invention.

The claims of a patent “define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal citations omitted). Consequently, “[c]laim construction begins with the language of the claim.” *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1360 (Fed. Cir. 2013). Claim terms generally receive their ordinary and customary meaning, which is the meaning that a

person of ordinary skill in the art would have understood the claim term to have as of the filing date of the patent application. *Phillips*, 415 F.3d at 1313. “[U]nless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill.” *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001).

B. Claims are interpreted in light of the intrinsic record.

Notwithstanding the primacy of the claim language, courts interpret claim language “in light of the intrinsic evidence of record, including the written description, the drawings, and the prosecution history.” *Power Integrations*, 711 F.3d at 1360 (citation omitted). The specification can be useful, for example, to “determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning.” *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Additionally, “[i]diosyncratic language, highly technical terms, or terms coined by the inventor are best understood by reference to the specification.” *3M Innovation Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013). Although the specification can be a useful guide to how the inventor used a disputed term, “limitations discussed in the specification may not be read into the claims.” *Id.*; see also *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009).

The prosecution history can also inform the meaning of the claim language “because it may contain contemporaneous exchanges between the patent applicant and the PTO about what the claims mean.” *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1344 (Fed. Cir. 1998). The prosecution history, however, cannot be relied upon “to construe the meaning of [a] claim to be narrower than it would otherwise be unless a patentee limited or surrendered claim scope through a clear and unmistakable disavowal.” *3M Innovation Props.*, 725 F.3d at 1322.

C. Extrinsic evidence may not contradict or limit the claim language.

Extrinsic evidence, such as technical dictionaries, may “help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean,” but such evidence should be considered in the context of the intrinsic record. *Phillips*, 415 F.3d at 1319. Extrinsic evidence cannot be used to “vary, contradict, expand, or limit the claim language from how it is defined, even by implication, in the specification or file history.” *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc.*, 262 F.3d 1258, 1269 (Fed. Cir. 2001).

III. DISPUTED TERMS AND PHRASES

A. U.S. Patent No. 8,055,820

The ’820 patent describes a technique for efficiently communicating “buffer status reports” (“BSRs”), which are messages used in data networks to schedule uplink communications (i.e., transmissions from a mobile device to the network). *See, e.g.*, Ex. A at 1:21-25; 5:51-58. For example, in LTE networks, a mobile device may transmit a BSR indicating it has data it wants to send. Based on the content of a BSR received from that device, network equipment can reserve uplink resources for the data transmission. The ’820 patent reduces overhead associated with BSR messages by using different BSR formats, including “long” and “short” formats, which may be selectively transmitted depending on the amount of uplink bandwidth available. *Id.* at 10:29-44.

To that end, the ’820 patent recites a method, apparatus, and software program capable of “monitoring a usage of a plurality of buffers.” *See id.* at 11:9-10; 11:60-61; 13:4. In addition to this “monitoring” functionality, each independent claim further requires “detecting” a “pre-selected condition” corresponding to the plurality of buffers, “designating” a long or short buffer status reporting format depending on the pre-selected condition detected, and “communicating” a

BSR in accordance with the format designated. *Id.* at 11:11-20; 11:62-12:6; 13:6-14:8. Each independent claim also specifies that the “designating” will designate the long BSR format when there is sufficient uplink bandwidth to communicate using it. *Id.*

1. “usage” (cl. 1, 12, 24)

CCE’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary.	“an act, way, or manner of using”

The parties dispute whether the term “usage” requires construction. This term is found in the asserted independent claims of the ’820 patent, which recite a method, apparatus, and software program for “monitoring a usage of a plurality of buffers.”

The specification describes monitoring “usage” in broad terms, commensurate with the plain claim language. In fact, the Abstract mirrors the claims, describing a device “configured [to] monitor a usage of a plurality of buffers[.]” Ex. A at Abstract. Likewise, the summary of the invention repeatedly refers to “monitoring a usage of a plurality of buffers.” *Id.* at 1:40-41; 2:16-18; 2:56-58; 3:43-45; 4:16-18; 4:37-40. And the detailed description addresses embodiments in which a device is configured to “monitor a usage of the plurality of buffers” or “monitor[] a usage of one or more communication buffers.” *Id.* at 6:1-2; 7:59-60.

Moreover, the patent explains that devices monitor buffer “usage” in order to detect a “pre-selected condition.” For instance, the patent explains:

In some embodiments, the monitoring unit 210 is configured to monitor a usage of the plurality of buffers 220. In certain embodiments, the monitoring unit 210 and the detecting unit 230 cooperate to enable the detecting unit 230 to detect one of a plurality of pre-selected conditions corresponding to the plurality of buffers. The pre-selected conditions will be discussed in further detail below but may include, for example, any data in one or more buffers [or] data in one or more buffers beyond a pre-selected threshold.

Id. at 6:1-9 (emphasis added). Accordingly, monitoring “usage” is a precursor to detecting a “pre-selected condition” described in the patent. As a result, monitoring “usage” may entail monitoring whether or not data is in one or more of the buffers, or monitoring whether or not the amount of data in the buffers exceeds a pre-determined threshold. *See id.* at 6:1-9; 7:58-63; 10:7-28. This comports with a broad understanding of “usage.”

The intrinsic evidence thus confirms that “usage” should be given its ordinary meaning. Further construction is unjustified and unhelpful. *See Smartflash LLC v. Apple Inc.*, C.A. 6:13-cv-00447, Dkt No. 229 at 25-26 (E.D. Tex. Sept. 24, 2014) (“the intrinsic evidence shows that the disputed terms are being used in accordance with their plain and ordinary meaning. Further construing the terms would only lead to confusion instead of clarification.”).

Nonetheless, Defendants’ wish to substitute a phrase of their own design — “an act, way, or manner of using,” — for clear and unambiguous claim language. Ostensibly, their proposal is based on dictionaries cited in their P.R. 4-3 disclosures. But rather than actually proposing a dictionary definition, Defendants construct their own by selectively adopting — and omitting — phrases from the extrinsic evidence they identify. As a result, Defendants’ construction ignores the broader meaning of “usage” conveyed in their own dictionaries, which define that term to encompass not only “an act, way, or manner of using,” but also “use,” “employment,” “the fact of being used,” “treatment,” “the action or mode of using,” “the...extent of using,” and “an act...of

employing.” *See* Ex. B at JOINTDEFS-CCE005227; -5230; -5238; -5246; -5250; -5254; -5257; -5260. Defendants’ disregard for this broader meaning of “usage” is arbitrary and improper, and their construction must be rejected.

B. U.S. Patent No. 7,218,923

The ’8923 patent relates to mobile device security. Many mobile devices available today utilize “open” software platforms that allow developers unaffiliated with the manufacturer to create applications for users to install and execute. Ex. C at 1:31-37. Android and iOS are examples of such platforms, and there are a multitude of third-party application developers that develop and distribute applications devices built on those platforms. Open development offers many benefits, but security is a perennial concern in light of the possibility that unscrupulous developers might fraudulently exploit devices and services. *Id.* at 1:38-47.

The ’8923 patent describes security features that can be used to control messages sent by applications, including applications developed by third-parties. It describes a terminal capable of diverting a message, before it is transmitted to a network, to a controlling entity and, based on the message, controlling whether the application behaves in a predetermined manner. *See id.* at 1:59-2:11. CCE asserts claims 24, 26, and 32.

1. “a message of the messages” (cl. 24)

CCE’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary.	“one or more, but less than all, of the messages”

The parties dispute whether the phrase “a message of the messages” requires construction. This term appears in claim 24, as shown below:

24. A terminal for a communication system, the terminal comprising:

an application program configured to send messages towards a communication network; and
 a diverting unit configured to divert a messages of the messages sent from the application program and destined for the communication network to a controlling entity residing in the terminal,
 wherein the controlling entity is configured to control, based on the message and before the messages is transmitted to the communication network, whether the application program behaves in a predetermined manner in the communication terminal, and
 wherein the terminal is a terminal of a communication system.

Ex. C at 10:58-11:5 (emphasis added).

The phrase “a message of the messages” uses ordinary language. The phrase identifies one message of “the messages,” referring back to previously-recited “messages” to be sent towards a communication network. And, because “a message of the messages” appears in an open-ended claim containing the transitional phrase “comprising,” as a rule it is to be interpreted as “one or more of the messages.” *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008) (“This court has repeatedly emphasized that an indefinite article ‘a’ or ‘an’ in patent parlance carries the meaning of ‘one or more’ in open-ended claims containing the transitional phrase ‘comprising.’ That ‘a’ or ‘an’ can mean ‘one or more’ is best described as a rule, rather than merely as a presumption or even a convention.”) (internal quotations omitted).

Nonetheless, Defendants wrongly allege that “a message of the messages” means “less than all” of them. Their construction finds no support in the intrinsic record. To the contrary, the specification confirms that “a message of the messages” means “one or more of the messages” in a broad sense. The Abstract describes a terminal in which “at least some of the messages generated by an application residing in the terminal and destined for a communication network are diverted to an independent controlling entity also residing in the terminal.” Ex. C at Abstract (emphasis added). Likewise, the summary of the invention describes a terminal in which “at least some of

the outbound messages generated by an application in [the] terminal are diverted to the controlling entity on their way from the application to the network.” *Id.* at 1:60-63. It also describes a method that includes “diverting at least one message,” a terminal “for diverting selected messages,” and a system for “diverting at least some of the messages.” *Id.* at 2:14-19; 2:23-31; 2:38-45. Defendants’ “less than all” limitation finds no support in these passages.

Nor does the intrinsic record set forth any lexicography or disclaimer to justify Defendants’ confining proposal. Indeed, the lack of intrinsic support for Defendants’ construction is confirmed by their own statements to the Court. Throughout the initial claim construction proceeding concerning this patent, Defendants argued that “a diverting unit configured to divert a message of the messages...” means “a diverting unit configured to redirect a message of the messages[.]” and their briefing acknowledged that “a message of the messages” refers to “one or more of the messages.” Dkt No. 288 at 17 (“Without the ‘diverting unit’ redirecting one or more of the messages, the protocol stack sends the messages to the network.”) (emphasis added).

Further, neither Defendants nor CCE sought a narrowing construction of the disputed claim language in connection with the *inter partes* review (IPR) petition filed last July.¹ Defendants’ petition argued that “diverting a message of the messages” means “transferring at least some of the messages to a different destination than their intended destination,” and CCE’s preliminary response asserted that “divert[ing] a message of the messages to a controlling entity residing in a communication terminal...” should be construed as “redirecting a message of the messages to a controlling entity residing in a communication terminal.” *See* Ex. D at 14, 18 (emphasis added); Ex. E at 16 (emphasis added).

¹ Defendants NEC, HTC, ZTE, Pantech, and LG submitted a petition for *inter partes* review to the Patent Trial and Appeal Board in July 2014.

Thus, Defendants twice had the opportunity to identify and explain the correct construction of “a message of the messages” in related proceedings, and they twice endorsed a broad, ordinary understanding of that language. The narrow proposal they now seek is unsupported and improper.

2. “tamper resistant” (cl. 26)

CCE’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning; no construction necessary.	“resistant to being affected by a user or other parties that are beyond the control of the network operator”

The parties also dispute whether the phrase “tamper resistant” requires construction. The contested language is found in claim 26, which depends from claim 24:

26. The terminal according to claim 24, wherein the controlling entity is configured to reside in a **tamper resistant** area of the terminal.

Ex. C at 11:10-12 (emphasis added).

The meaning of “tamper” is a widely-known and well-understood — it means “to interfere in a harmful or unauthorized manner.” Ex. F at 771 (“tamper”). Thus, something that is “tamper resistant” is *resistant to harmful or unauthorized interference*. The ’8923 patent uses this term consistent with that plain and ordinary meaning.

As discussed above, the ’8923 patent addresses security concerns associated with open development platforms by providing mechanisms for controlling the behavior of applications. *See, e.g.*, Ex. C at 1:38-2:11. In addition to providing diverting and controlling mechanisms for message management, it also teaches that, for increased security, such control mechanisms and other sensitive information may be stored in a tamper-resistant area of the terminal. For instance, the patent describes embodiments in which a “controlling entity” resides in a tamper-resistant area to protect it. *Id.* at 2:3-6. It also describes embodiments in which “policy rules” for terminals are

stored in the tamper resistant area. *Id.* at 6:27-31. And similarly, encryption keys and certificates may also be stored in the tamper-resistant area of a terminal. *See id.* at 6:1-5; 7:64-8:5. These passages confirm that sensitive information can be stored in a tamper resistant area for added security. This comports with the ordinary understanding of a “tamper resistant” area as one that is resistant to harmful or unauthorized interference.

Defendants’ proposed construction departs from this ordinary meaning to redefine “tamper” as “being affected by a user or other parties that are beyond the control of the network operator.” They identify no prosecution history disclaimer applicable to this claim term (*see* Dkt No. 353-2), and their position thus hinges on proving that the patentees intentionally redefined this term. But the standards for finding special lexicography are “exacting:”

To act as its own lexicographer, a patentee must clearly set forth a definition of the disputed claim term other than its plain and ordinary meaning and must clearly express an intent to redefine the term.

Hill-Rom Svcs. v. Stryker Corp., 755 F.3d 1367, 1371 (Fed. Cir. 2014) (internal quotations and citations omitted) (emphasis added).

Defendants cannot carry this burden. Their construction rests solely on a passage in column 2 that describes an objective of using a tamper-resistant area — not the meaning of “tamper resistant:”

The controlling entity resides in a tamper resistant area of the terminal, so that its operation cannot be affected by the user or other parties that are beyond the control of the network operator.

Ex. C at 2:3-6 (emphasis added). The words “so that” in the passage above indicate that what follows is a reason, not a definition. This passage does not “clearly set forth a definition of the disputed term,” and thus cannot constitute a lexicography.

Moreover, the intrinsic record is devoid of any express intent to recast the meaning of

“tamper resistant.” The ’8923 patent teaches that sensitive information may be stored in a tamper-resistant area of a terminal. Rather than affirmatively specifying a new meaning for “tamper resistant,” the specification relies on and invokes the ordinary meaning of the term in discussing its utility. That is, one skilled in the art would understand that encryption keys and the like may be stored in a tamper-resistant area because they are security-sensitive, and a tamper resistant area provides increased security because it is resistant to harmful or unauthorized interference. The patent does not deviate from this ordinary understanding of “tamper resistant,” and Defendants’ construction thus fails both prongs of the “exacting” standard for lexicography.

Finally, Defendants’ proposal must also be rejected because it introduces ambiguity and confusion into an otherwise straightforward claim element. Indeed, their construction demands an inquiry into who and what are “beyond the control of the network operator.” Such is improper — a network operator’s scope of “control” does dictate whether or not an area is “tamper resistant.” Moreover, Defendants’ attempt to limit control of “tamper resistant areas” to a “network operator” is justified. The patent expressly contemplates that tamper-resistant areas are accessible to manufacturers as well as operators. Ex. C at 6:45-48; 7:67-8:5. Defendants’ narrow construction of “tamper resistant” is therefore improper.

Dated: **February 23, 2015.**

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CERTIFICATE OF SERVICE

I hereby certify that on the 23rd day of February, 2015, I electronically filed the foregoing document with the clerk of the Court for the U.S. District Court, Eastern District of Texas, Tyler Division, using the Court's electronic case filing system. The electronic case filing system sent a "Notice of Electronic Filing" to the attorneys of record who have consented in writing to accept this Notice as service of this document by electronic means.

/s/ Edward R. Nelson, III